

## AIR QUALITY PERMIT

Issued To: United Materials of Great Falls, Inc.  
2100 – 9<sup>th</sup> Ave. North  
P.O. Box 1690  
Great Falls, MT 59403-1690

Permit #3280-00  
Application Complete: 08/13/03  
Preliminary Determination Issued: 08/29/03  
Department Decision Issued: 09/16/03  
Permit Final: 10/02/03  
AFS #: 777-3280

An air quality permit, with conditions, is hereby granted to United Materials of Great Falls, Inc. (United), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

#### A. Permitted Equipment

United operates a portable central mix concrete batch plant. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

#### B. Plant Location

United operates a portable central mix concrete batch plant operation, which will originally locate in the NE ¼ of Section 12, Township 20 North, Range 2 East, in Cascade County, Montana. However, Permit #3280-00 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum to this air quality permit will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

### Section II: Conditions and Limitations

#### A. Emission Control Requirements

1. United shall install, operate, and maintain the fabric filter dust collector, a mixer charging shoot, and mixer nose plug as specified in Montana Air Quality Permit #3280-00 and all supporting documentation (ARM 17.8.752):
  - a. United shall install, operate, and maintain the fabric filter dust collector on the cement silo and cement supplement silo; and
  - b. United shall install, operate, and maintain the mixer charging shoot and mixer nose plug on the concrete plant for product loadout.
2. United shall not cause or authorize to be discharged into the atmosphere from the ready mix plant:
  - a. Any vent emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).

- b. Any fugitive emissions from the source, or from any material transfer operations, including, but not limited to, truck loading or unloading, which exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).
3. United shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
4. United shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.752).
5. Total plant production shall be limited to 2,409,000 cubic yards of concrete during any rolling 12-month time period (ARM 17.8.749).
6. If the permitted equipment is used in conjunction with any other equipment owned or operated by United, at the same site, production shall be limited to correspond with an emissions level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
7. United shall not operate more than one diesel generator at any given time and the maximum rated design capacity shall not exceed 600 Kilowatts (kW) (ARM 17.8.749).
8. Operation of the diesel generator shall not exceed 7,970 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

B. Emissions Monitoring

1. United shall inspect the baghouse and its vents every 6 months of operation to ensure that each collector is operating at the optimum efficiency recommended by the manufacturer. Records of inspections, repairs, and maintenance shall be kept for a minimum of 5 years (ARM 17.8.749).
2. United shall maintain on-site records of inspections, repairs, and maintenance. All records compiled in accordance with this permit shall be maintained by United as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

C. Testing Requirements

1. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

D. Operational Reporting Requirements

1. If this concrete batch plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).
2. United shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by United as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).
3. United shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emission inventory request. The request will include, but is not limited to, all sources identified in the most recent emission inventory report and sources identified in Section I.A of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units as required by the Department (ARM 17.8.505).

4. United shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
5. United shall document, by month, the total concrete plant production. By the 25th day of each month, United shall total the plant production during the previous 12 months to verify compliance with the limitation in Section II.A.5. A written report of the compliance verification shall be submitted annually to the Department along with the annual emission inventory (ARM 17.8.749).
6. United shall document, by month, the total hours of operation of the diesel generator. By the 25th day of each month, United shall total the hours of operation of the diesel generator during the previous 12 months to verify compliance with the limitation in Section II.A.8. A written report of the compliance verification shall be submitted along with the annual emission inventory (ARM 17.8.749).
7. United shall annually certify that its emissions are less than those that would require the facility to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted

along with the annual emissions inventory information.

Section III: General Conditions

- A. Inspection – United shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if United fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving United of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The Department's decision on the application is not final unless 15 days have elapsed and there is no request for a hearing under this section. The filing of a request for a hearing postpones the effective date of the Department's decision until the conclusion of the hearing and issuance of a final decision by the Board.
- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked.
- H. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, the continuing validity of this permit is conditional upon the payment by United of an annual operation fee, as required by that section and rules adopted thereunder by the Board.
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. United shall comply with conditions contained in this permit while operating at any location in Montana, except within those areas having a Department approved permitting program.

Permit Analysis  
United Materials of Great Falls, Inc.  
Permit #3280-00

I. Introduction

A. Permitted Equipment

United Materials of Great Falls, Inc. (United) operates a portable central mix concrete batch plant, which includes a 2003 Erie Strayer Central Mix Concrete Batch Plant (maximum capacity of 275 cubic yards per hour), with a diesel generator (maximum capacity up to 600 kilowatts (kW)), and associated equipment. Particulate emissions from the cement silo and the cement supplement silo will be controlled by a 2003 C&W fabric filter dust collector. Particulate emissions from the cement batcher will be controlled by a mixer charging shoot and mixer nose plug.

B. Process Description

Washed aggregate materials are loaded into a 3-compartment aggregate storage bin that feeds a conveyor. The conveyor feeds an aggregate batcher and drops the materials onto a mixer-charging shoot. Meanwhile, the cement and cement supplement are both pneumatically loaded into silos (using fabric filters to control particulate emissions). The cement supplement is screw fed to the cement batcher and the cement is gravity fed into the cement batcher and into the mixer-charging shoot. Water is also loaded into the central mix cement batcher. Materials are mixed and loaded into a mixer truck by means of the mixer nose plug. Materials are then ready to be transported, as cement, to the construction site.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations, or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary, using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

United shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs, which can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

United must comply with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, United shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
4. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60. This plant consists of a 2003 Central Mix Plant and associated equipment. NSPS (40 CFR Part 60, General Provisions and Subpart F, Portland Cement Plants) does not apply because the central mix plant does not meet the definition of an affected facility.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that United submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. United submitted the appropriate permit application fee as required for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, as described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions which prorate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. United has a PTE of more than 25 tons per year of total particulate matter, particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide (CO); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.
4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration or use of a source. United submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. United submitted an affidavit of publication of public notice for the July 17, 2003, issue of the *Great Falls Tribune*, a newspaper of general circulation in the Town of Great

Falls, in Cascade County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section IV of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving United of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of United, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.



14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not listed and does not have the potential to emit more than 250 tons per year (excluding fugitive emissions) of any air pollutant.

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 tons/year of any pollutant.
  - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule, or
  - c. PTE > 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3280-00 for United, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for any air pollutant.
  - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is not subject to any current NSPS standards.
  - e. This facility is not subject to any current NESHAP standards.

f. This source is not a Title IV affected source, nor a solid waste combustion unit.

g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that United would be a minor source of emissions as defined under Title V.

h. The Department may exempt a source from the requirement to obtain an air quality-operating permit by establishing federally enforceable limitations that limit the source's potential to emit.

i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's potential to emit... does not require the source to obtain an air quality-operating permit.

ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

The Department has determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

3. ARM 17.8.1207 Certification of Truth Accuracy and Completeness. The compliance certification submittal required by ARM 17.8.1204(3) should contain certification by a responsible official of truth, accuracy, and completeness by a responsible official. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

### III. Emission Inventory

Source	Tons/Year					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Aggregate Delivery to Ground Storage	7.75	3.71				
Sand Delivery to Ground Storage	1.81	0.85				
Aggregate Transfer to Conveyor	7.75	3.71				
Sand Transfer to Conveyor	1.81	0.85				
Aggregate Transfer to Elevated Storage	7.75	3.71				
Sand Transfer to Elevated Storage	1.81	0.85				
Cement Unloading to Elevated Storage Silo	0.21	0.14				
Cement Supplement Unloading to Elevated Silo	0.14	0.05				
Weigh Hopper Loading of Sand/Aggregate	1.01	0.48				
Central Mix	51.14	18.13				
Loading						
Diesel Generator (up to 600 kW)	7.05	7.05	99.40	7.92	21.42	6.57
Haul Roads	2.74	1.23				
Total	90.97	40.76	99.40	7.92	21.42	6.57

- A complete emission inventory for Permit #3280-00 is on file with the Department. Note that the diesel generator was limited to 7970 hours of operation per rolling 12-month time period to keep the facility emissions below the Title V threshold.

#### IV. BACT Determination

A BACT determination is required for any new or altered source. United shall install on the new or altered source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be used.

All visible emissions from any cement and cement supplement silo (or vent), truck loading or unloading operations, or any material transferring operations shall be limited to less than 20% opacity. United must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general plant property. United shall use a fabric filter dust collector for the cement and cement supplement silos and United shall use a mixer charging shoot and mixer nose plug on the cement batcher. The Department determined that using a fabric filter dust collector, a mixer charging shoot, mixer nose plug, and water spray and/or chemical dust suppressant to maintain compliance with the opacity and reasonable precaution limitations constitutes BACT for central mix concrete batch plant operations.

Due to the amount of PM, PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, and SO<sub>x</sub> emissions produced by the diesel generator, add-on controls would be cost prohibitive. Thus, the Department determined that no additional control would constitute BACT for the generator. The control options selected have controls and control costs similar to other recently permitted similar sources and these controls are capable of achieving the established emissions limits.

#### V. Existing Air Quality

Permit #3280-00 is issued for the operation of a portable central mix concrete batch plant to be originally located in the NE ¼ of Section 12, Township 20 North, Range 2 East, in Cascade County, Montana. This facility would currently be allowed to operate at this proposed site and any other areas designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS).

#### VI. Ambient Air Quality Impacts

This permit is for a portable central mix concrete batch plant to be located in various locations around Montana. Based on the amount of controlled particulate emissions generated by this project, the facility is capable of complying with ambient air quality standards. In addition, this source is portable and any air quality impacts will be minimal.

#### VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

#### VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Permitting and Compliance Division  
Air and Waste Management Bureau  
P.O. Box 200901, Helena, Montana 59620  
(406) 444-3490

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

Issued For: United Materials of Great Falls, Inc.  
2100 – 9<sup>th</sup> Ave. North  
P.O. Box 1690  
Great Falls, MT 59403-1690

Air Quality Permit Number: 3280-00

*Preliminary Determination Issued:* August 29, 2003

*Department Decision Issued:* September 16, 2003

*Permit Final:* October 2, 2003

1. *Legal Description of Site:* This permit is for the operation of a portable central mix concrete batch plant to be initially located at the NE ¼ of Section 12, Township 20 North, Range 2 East, in Cascade County, Montana. Permit #3280-00 would apply while operating at any location in Montana, except within those areas having a Department approved permitting program. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* An addendum to this air quality permit would be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.
2. *Description of Project:* United submitted a permit application for the construction and operation of a portable central mix concrete batch plant, which would include a 2003 Erie Strayer Central Mix Concrete Batch Plant (maximum capacity of 275 cubic yards per hour), with a diesel generator (maximum capacity up to 600 kilowatts), and associated equipment. Particulate emissions from the cement silo and the cement supplement silo would be controlled by a 2003 C&W fabric filter dust collector. Particulate emissions from the cement batcher would be controlled by a mixing charging shoot and mixer nose plug.
3. *Objectives of the Project:* United, in an effort to increase business and revenue for the company through the sale of cement, submitted a complete application for a central mix concrete batch plant. The concrete batch plant would be used to supply wet mix concrete to various construction projects. United would operate the portable equipment at various locations throughout Montana, including the proposed initial site location.
4. *Additional Project Site Information:* In many cases, the central mix concrete batch plant operation may move to a general site location, or open cut pit, which has been previously permitted through Industrial and Energy Minerals Bureau (IEMB). If this were the case, a more extensive EA would have been conducted and would be found in the Mined Land Reclamation Permit for that specific site.
5. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because United demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated.

from further consideration.

6. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be contained in Permit #3280-00.
7. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and do not unduly restrict private property rights.
8. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no action alternative” was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			yes
B.	Water Quality, Quantity, and Distribution			X			yes
C.	Geology and Soil Quality, Stability, and Moisture			X			yes
D.	Vegetation Cover, Quantity, and Quality			X			yes
E.	Aesthetics			X			yes
F.	Air Quality			X			yes
G.	Unique Endangered, Fragile, or Limited Environmental Resource				X		yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I.	Historical and Archaeological Sites				X		yes
J.	Cumulative and Secondary Impacts			X			yes

**Summary of Comments on Potential Physical and Biological Effects:** The following comments have been prepared by the Department.

#### A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the same area as the concrete batch plant operations. The concrete batch plant operations would be considered a minor source of emissions, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial life would be expected as a result of equipment operations or from pollutant deposition.

Impacts on aquatic life would result from water runoff and pollutant deposition, but such impacts would be minor because the facility would be a minor source of emissions (with seasonal and intermittent operations) and because only minor amounts of water would be required to be used for pollution control. Since good dispersion of air pollutants would occur in the proposed area of operation and only a minor amount of air emissions would be generated, only minor deposition would occur (see Section 8.F of this EA). Additionally, the proposed operational site is located approximately 1/6 mile away from the nearest stream, therefore, only minor and temporary effects to aquatic life and habitat would be expected from the proposed concrete batch plant operations. Therefore, only minor amounts of pollutants would reach the water body (due to pollution dispersion, storm water runoff, and the streams distance from the operational site). Also, the site has been identified as currently holding an existing class-3-landfill permit, so further protection measures may also be required to protect aquatic resources surrounding the site and no new impacts upon terrestrial life would be expected.

## B. Water Quality, Quantity, and Distribution

Water would be used for dust suppression on the surrounding roadways and areas of operation. At most, only minor surface and groundwater quality impacts would be expected as a result of using water for dust suppression because only small amounts of water would be required. Also, deposition of air pollutants on waterways would be minor (as described in Section 8.F of this EA) because the nearest surface water resource is approximately 1/6 mile away and the ground water resource would be protected by existing storm water, landfill, and mining permits at the proposed site. Also, pollutant emissions would be dispersed from good ventilation that exists at the proposed site (as described in Section 8.F), so deposition of pollutants from equipment operations upon any given area would be minimal. Further, additional water resource protection measures (as may be required by the state storm water, landfill, and mining permits) would also assist in minimizing impacts to these water resources.

## C. Geology and Soil Quality, Stability, and Moisture

The construction and use of the concrete batch plant would have only minimal impacts upon soils at the proposed site location, since the facility is a minor source of emissions and would have seasonal and intermittent operations. Also, the facility would be locating at a previously disturbed site, so little change to existing soil conditions would occur and no new acreage is expected to be disturbed. Therefore, any effects on geology and soil quality, stability, and moisture at the proposed operational site would be minor.

## D. Vegetation Cover, Quantity, and Quality

The facility would operate in an open-cut pit on a flat plateau with good ventilation. Also, the facility would be a minor source of emissions (described in Section 8.F of this EA), so corresponding impacts from pollutant deposition from the concrete batch plant's emissions would also be minor. Further, because the water usage is minimal (as described in Section 8.B) and the associated soil disturbance is minimal (as described in Section 8.C), the corresponding vegetative impacts would also be minimal.

## E. Aesthetics

The concrete batch plant operations would be visible to the general public, but would be located at a site already used for similar operations and for waste disposal. Permit #3280-00 would include conditions to control emissions, including visible emissions, from the plant. Additionally, the concrete batch plant would operate on an intermittent and seasonal basis and, therefore, any associated impacts upon aesthetics from the construction and use of the concrete batch plant would be minor and short-lived.

## F. Air Quality

The air quality impacts from the concrete batch plant would be minor because Permit #3280-00 would include conditions limiting the facility's opacity, as well as require a fabric filter dust collector, mixer charging shoot, and mixer nose plug to control facility emissions. Furthermore, Permit #3280-00 would limit total emissions from ACME's concrete batch plant and any additional ACME equipment operated at the site to 250 tons/year or less, excluding fugitive emissions. The permit would also require dust suppression to control fugitive emissions. In addition, the plant would be operated intermittently in various locations and would have a facility production limit, thereby further reducing potential air quality impacts from the facility. At the proposed initial site location, the facility would be located in an area where good pollutant dispersion would occur because the facility would be located on a flat bench in a relatively open area (as described in Section 8.D). Therefore, air quality impacts would be minor.

#### G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to unique endangered, fragile, or limited environmental resources in the initial proposed area of operation, contacted the Montana Natural Heritage Program (MNHP). MNHP search results concluded there are no such environmental resources found within the defined area. The defined area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. Therefore, no impacts to any unique endangered, fragile, or limited environmental resources would be expected to occur.

#### H. Demands on Environmental Resources of Water, Air, and Energy

Due to the size of the facility, the concrete batch plant would only require small quantities of water, air, and energy for proper operation. Small quantities of water would be used for dust suppression. In addition, impacts to air resources would be minor because the source is small by industrial standards, with intermittent and seasonal operations and because air pollutants generated by the facility would be dissipated. Energy would be provided by one diesel generator that would use a limited amount of diesel fuel (a non-renewable resource) and would be operated on a limited basis. Therefore, any impacts to water, air, and energy resources would be minor.

#### I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. Search results concluded that there are no previously recorded historical or archaeological resources of concern within the area proposed for initial operations. According to past correspondence from the Montana State Historic Preservation Office, given any previous industrial disturbance in the area, there would be a low likelihood of adverse disturbance to any known archaeological or historic site. Therefore, no impacts upon historical or archaeological sites would be expected as a result of operating the proposed concrete batch plant.

#### J. Cumulative and Secondary Impacts

The concrete batch plant would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate emissions of PM, PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, and SO<sub>x</sub>. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the site is located in an area that has good ventilation and is remote from any residence. Further, noise generated from the facility would be minor because it would be a concrete batch facility, which is a relatively small and quiet industrial source to be located at a previously disturbed industrial site. Additionally, this facility, in combination with the other United emissions from the site would not be permitted to exceed 250 tons per year of non-fugitive emissions. Overall, any impacts to the physical and biological aspects of the human environment would be minor.

9. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no action alternative” was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Social Structures and Mores				X		yes
B.	Cultural Uniqueness and Diversity				X		yes
C.	Local and State Tax Base and Tax Revenue			X			yes
D.	Agricultural or Industrial Production			X			yes
E.	Human Health			X			yes
F.	Access to and Quality of Recreational and Wilderness Activities			X			yes
G.	Quantity and Distribution of Employment			X			yes
H.	Distribution of Population				X		yes
I.	Demands for Government Services			X			yes
J.	Industrial and Commercial Activity			X			yes
K.	Locally Adopted Environmental Plans and Goals			X			yes
L.	Cumulative and Secondary Impacts			X			yes

**SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:** The Department has prepared the following comments.

A. Social Structures and Mores

The concrete batch plant would cause no disruption to the social structures and mores in the area because the source is a minor source of emissions and would only have intermittent operations. Additionally, the equipment would be located in an open-cut pit that is designated and currently used for industrial operations. The area is removed from the general population and the nearest household is approximately 1/3 mile away. The predominant use of the surrounding areas would not change as a result of this project. Thus, no impacts upon social structures or mores would result.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of the area would not be impacted by the proposed concrete batch plant because the site and surrounding area are currently designated and used for industrial purposes and the operations would be separated from the general population. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. In addition, the predominant use of the surrounding areas would not change as a result of this project.

C. Local and State Tax Base and Tax Revenue

The concrete batch plant operations would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a relatively small industrial source and would operate seasonally and intermittently. The facility operations would require the use of only eight employees and only one new employee is expected to be hired. Thus, only minor, if any, impacts to the local and state tax base and revenue could be expected from the employees or from facility production. Furthermore, the impacts to local tax base and revenue is expected to be minor because the source



would also be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The concrete batch plant operations would have only a minor impact on local industrial production since the facility is relatively small source of material production (small by industrial standards) and would have seasonal and intermittent operations. There would be minor effects from air emissions on agricultural land because the facility would be operating in an open-cut pit that is near land that could be used for wheat farming and animal grazing. However, the area immediately surrounding the site is currently being utilized as a class-3 landfill, so any such effects from pollutant deposition on the surrounding agricultural lands would be minimal. Also, the facility operations are small and temporary in nature, and would be permitted with operational conditions and limitations that would minimize air impacts upon surrounding vegetation, as described in Section 8.D of this EA. Therefore, because pollution control would be utilized on equipment operations and production limits would be established to protect the surrounding environment, impacts to surrounding agricultural land would be minimal.

E. Human Health

Permit #3280-00 would incorporate conditions to ensure that the concrete batch plant would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 8.F., the air emissions from this facility would be minimized by the use of a fabric filter dust collector, a mixer charging shoot, a mixer nose plug, and production and opacity limits established in Permit #3280-00. Therefore, only minor impacts would be expected on human health from the proposed concrete batch plant.

F. Access to and Quality of Recreational and Wilderness Activities

The concrete batch plant would not impact the access to recreational and wilderness activities because the facility would be operating on private property, in a pit that is used for the production of concrete, and surrounded by an area that is considered a class-3 landfill. However, minor effects to the quality of recreational and wilderness activities would occur from visual observation of the facility, visible emissions from the facility, and noise from equipment operations. Additionally, emissions and noise generated from the facility would be minor because the facility would be a relatively small and quiet industrial source and would have intermittent and seasonal operations. Therefore, any effects on quality of recreational and wilderness activities would be minor and short-lived.

G. Quantity and Distribution of Employment

The concrete batch plant would have only minor effects on the quantity and distribution of employment in the area because only eight employees would be used for such operations. Further, only one new employee would be expected to be added. The other seven employees would be existing United employees. Furthermore, the facility is a portable source with intermittent and seasonal operations.

H. Distribution of Population

The portable concrete batch plant would be small and would only create one new employment opportunity with United. Further, no individuals are expected to permanently relocate to the area as a result of operating the concrete batch plant. Therefore, the concrete batch plant would not disrupt the normal population distribution in the initial area of operation or any future area of operation.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the concrete batch plant is operating. In addition, government services would be required for acquiring the appropriate permits from government agencies and for government personnel to verify compliance with the permits. Demands for government services would be minor.

J. Industrial and Commercial Activity

The concrete batch plant would represent only a minor increase in the industrial activity in the given area because the source is a minor source and is relatively small and portable in nature. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

United would generally be allowed, by permit, to operate in areas designated by EPA as attainment or unclassified. The permitted production limits and opacity limits would be protective of air quality while the facility is operating in permitted locations. Because the facility would be a small and portable source and because the facility would have intermittent and seasonal operations, any effects from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The concrete batch plant would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because the source would be a portable, temporary source. Minor increases in facility traffic would have minor effects on local traffic in the immediate area, thus, having a direct effect on the social environment. Because the source would be a relatively small and temporary, only minor impacts to the local economy could be expected from the operation of the facility.

*Recommendation:* An EIS is not required.

*If an EIS is not required, explain why the EA is an appropriate level of analysis:* All potential effects resulting from construction and operation of the proposed facility are minor; therefore, an EIS is not required.

*Other groups or agencies contacted or which may have overlapping jurisdiction:* Department of Environmental Quality - Permitting and Compliance Division (Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

*Individuals or groups contributing to this EA:* Department of Environmental Quality (Air and Waste Management Bureau and Industrial and Energy Minerals Bureau), Montana Natural Heritage Program, and State Historic Preservation Office (Montana Historical Society).

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